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**From:** Sun, Mei [msun8@uncc.edu]  
**Sent:** 11/8/2016 6:19:42 PM  
**To:** Detlef Knappe [knappe@ncsu.edu]  
**CC:** Strynar, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]; Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]  
**Subject:** Re: ESTL paper

How about this: It is important to note, however, that the relative concentrations of PFHxA and PFHpA compared to PFOA, PFNA, and PFDA in 2013 are higher than in 2006.

Mei Sun

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On Tue, Nov 8, 2016 at 1:14 PM, Detlef Knappe <[knappe@ncsu.edu](mailto:knappe@ncsu.edu)> wrote:

I think we can only make a comparison in the C6-C10 range, where the data sets overlap

On 11/8/16 1:10 PM, Sun, Mei wrote:

How about change the sentence to "It is important to note, however, that the relative concentrations of short-chain (CnF2n+1COOH, n=3-6) compared to long-chain PFCAs (CnF2n+1COOH, n≥7) in 2013 are higher than in 2013" and delete the PFSA part?

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On Tue, Nov 8, 2016 at 9:58 AM, Detlef Knappe <[knappe@ncsu.edu](mailto:knappe@ncsu.edu)> wrote:

For lines 82-84. Yes, that's why the word "other" appears. Your findings appear in an earlier sentence.

For lines 143-146, I was wondering about that. We could still comment on a shift from longer chain to shorter chain PFCAs (just not with the percentage contributions to sum PFAS) or we could state that differences in target PFASs (C11 and C12 included, C4 and C5 excluded in 2006; C11 and C12 excluded, C4 and C5 included in 2013)

Thoughts?

On 11/8/16 9:48 AM, Strynar, Mark wrote:

Two very minor comments Lines 82-84

PFECAs. To the knowledge of the authors, the only other published PFECA occurrence data are for PFPrOPrA in Europe and China,<sup>21</sup> and no published data are available on the fate of PFECAs during water treatment. (Does this statement include our efforts on the Cape Fear river Strynar et al., 2015)

Lines 143-146

was recently phased out in the US. It is important to note, however, that the contribution of long-chain PFCAs to  $\sum$ PFAS shifted from long-chain (70%  $C_nF_{2n+1}COOH$ ,  $n \geq 7$ ) in 2006 to short-chain (70%  $C_nF_{2n+1}COOH$ ,  $n=3-6$ ) in 2013. In contrast, the PFOS contribution to  $\sum$ PFAS remained the same (13%). (This is really not an apples to apples comparison; in the 2006 Nakayama effort we did not measure for C4 or C5. )

See attached.

Mark

-----Original Message-----

From: Detlef Knappe [mailto:[knappe@ncsu.edu](mailto:knappe@ncsu.edu)]

Sent: Tuesday, November 08, 2016 9:34 AM

To: Strynar, Mark <[Strynar.Mark@epa.gov](mailto:Strynar.Mark@epa.gov)>; Lindstrom, Andrew

<[Lindstrom.Andrew@epa.gov](mailto:Lindstrom.Andrew@epa.gov)>; Mei Sun <[msun8@uncc.edu](mailto:msun8@uncc.edu)>

Subject: Re: ESTL paper

Hope you are feeling better, Mark. Thank you for looking at paper and responses.

Detlef

On 11/8/16 9:19 AM, Strynar, Mark wrote:

Detlef,

I was out sick yesterday. I am looking at it now.

Mark

-----Original Message-----

From: Detlef Knappe [mailto:[knappe@ncsu.edu](mailto:knappe@ncsu.edu)]

Sent: Monday, November 07, 2016 11:43 PM

To: Strynar, Mark <[Strynar.Mark@epa.gov](mailto:Strynar.Mark@epa.gov)>; Lindstrom, Andrew  
<[Lindstrom.Andrew@epa.gov](mailto:Lindstrom.Andrew@epa.gov)>; Mei Sun <[msun8@uncc.edu](mailto:msun8@uncc.edu)>

Subject: ESTL paper

Andy and Mark,

Attached is the latest version. The only change from the file Mei sent is the text following Figure 3b.

We need to submit the revised paper tomorrow (Tuesday) - so today when you read this :)

Any comments will be appreciated!

Thank you,

Detlef

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Detlef Knappe

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